

Herbicide Products Comparison Table 2006 *Information compiled by Wisconsin DNR, Forest Health Protection*

PRODUCT NAME & ACTIVE INGREDIENT	FORMULATION	FORESTRY USE	APPLICATION	ENTERS WEED THROUGH	TIMING	AMOUNT	COMMENTS
Transline Clopyralid 40.9%	Emulsifiable concentrate.	Post-emergent control of broadleaf weeds; Site preparation; Release; Hybrid poplar plantations.	Ground broadcast and spot spray.	Foliage and stems.	When weeds are actively growing.	1/4 - 1 1/3 pints per acre.	Supplemental labeling for forestry application with endangered species restriction: do not apply to wild lupine.
Vanquish Dicamba 56.8%	Emulsifiable concentrate.	Non-selective forest brush control; Selective tree removal; Forest site preparation.	Aerial or ground, broadcast or direct spray; Cut surface.	Foliage, stem and sapwood. Some uptake by roots.	Full leaf to 2 weeks before first frost.	2 quarts product per acre maximum.	Ground and basal spray OK for multiflora rose.
Accord¹, Foresters¹, Glypro¹, Glyphosate¹, Razor¹ Glyphosate 41.0% to 53.8%	Soluble concentrate.	Post-emergent control of grass and broadleaf weeds, brush and woody plants; Conifer release; Site preparation.	Aerial or ground, broadcast or direct spray; Cut surface.	Foliage or cut surface.	After full leaf expansion; Woody plants late summer; Release of pine and spruce allowed at end of first growing season.	0.75 - 10 pints product per acre.	Wetland label for products without surfactant. Surfactant required for many uses. Tank mixtures O.K. See label.
Velpar L^{1,2} Hexazinone 25%	Soluble concentrate.	Site preparation; Conifer release; Grid and single stem control; Brush control.	Aerial or ground, broadcast or directed spray; Grid or single stem soil application; Injection.	Roots and foliage.	Early spring to early summer. Best when applied within 2 weeks of 1/4 - 1/2 inches expected rainfall.	Site preparation 4 - 10 quarts per acre; Release 2 - 8 quarts per acre; Brush control 2 - 4 gallons per acre; Varies with soil texture organic matter and tree species.	Release trees 2 to 4 years after planting depending on soil and tree species. Tank mix with Tordon 101 or Garlon 4. See label.
Arsenal AC^{1,2} Imazapyr 53.1%	Soluble concentrate.	Post-emergent control for conifer site preparation and release.	Aerial (helicopter only) or ground, broadcast or directed spray; Cut surface injection.	Roots and foliage.	Foliage after full leaf expansion; Cut surface any time except heavy sap flow.	6 2/3 ounces - 2 pints product diluted in 5 gallon water per acre. See label.	Do not apply with fixed wing aircraft. Tank mixture OK. See label.
Chopper² Imazapyr 27.6%	Emulsifiable concentrate.	Site preparation; Brush control; Directed foliar application for conifer release.	Aerial or ground, broadcast or directed spray; Spray or brush onto cut surface.	Foliage, bark, cut surface and roots.	Foliage after full leaf expansion; Cut surface any time except heavy sap flow.	Conifer site preparation 24 - 32 ounces product per acre. See label.	Do not apply with fixed wing aircraft.
Stalker² Imazapyr 27.6%	Emulsifiable concentrate.	Cut stump and frill cut for brush control.	Ground broadcast, spot and injection.	Roots, bark and foliage.	Anytime except heavy sap flow.	8 - 16 ounces in 1 gallon water.	Tank mixtures OK. See label. Nearby roots may accidentally uptake Stalker and cause damage.

¹Multiple formulations available for this product. Check <http://www.cdms.net/manuf/manuf.asp?t=0> for more information.

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Linex 4L Linuron 40.6%	Flowable concentrate to be mixed with water.	Pre- and early post-emergent weed control in hybrid poplar plantings.	Overtop application OK before bud break; Directed spray after bud break.	Roots and foliage.	In spring before or shortly after weeds germinate when precipitation is expected.	2 - 4 pints product per acre. Use lower rates on lighter soils.	Aerial application prohibited.
Lorox DF Linuron 50%	Water dispersible granule.	Pre- and early post-emergent weed control in hybrid poplar plantings.	Overtop application OK before bud break; Directed spray after bud break.	Roots and foliage.	In spring before or shortly after weeds germinate when precipitation is expected.	2 - 4 pounds product per acre. Use lower rates on lighter soils.	Aerial application prohibited.
Escort XP, Patriot Metsulfuron methyl 60%	Water dispersible granule.	Red pine site preparation the season before planting; Brush control.	Aerial (helicopter only) or ground broadcast.	Mainly foliage, but some uptake by roots.	When weeds have full leaf expansion and are actively growing.	Site preparation 1/3 - 2 ounces per acre; Brush control ½ - 3 ounces per acre depending on weed species and timing.	Transplant following planting season. Tank mixture combinations available. See label.
Predict Norflurazon 78.6%	Water dispersible granule.	Pre-emergent control of grass and broadleaf weeds in plantations.	Ground broadcast, strip or band spray.	Roots.	Before weed emergence in fall or spring.	2.5 - 5 pounds per acre.	Do not use on coarse textured soils. Allow new transplants one growing season before application. Tank mixtures OK. See label.
Pendulum 3.3 EC¹ Pendimethalin 37.4%	Emulsifiable concentrate.	Pre-emergent control of annual grasses and broadleaf weeds; Site preparation and maintenance.	Ground broadcast or directed.	Roots.	Site preparation apply at planting or to established trees.	2.4 - 4.8 quarts per acre.	Tank mixture OK. See label. For application at planting wait for closure of planting slit.
Tordon K RESTRICTED USE Picloram 24.4%	Emulsifiable concentrate.	Site preparation.	Aerial or ground, broadcast or directed spray.	Foliage and stem.	From full leaf expansion through late summer.	1- 2 quarts product per acre.	Backflash possible. Wait 8-9 months after use before planting conifers. Tank mixture OK. See label.
Tordon 101 Mixture RESTRICTED USE Picloram 10.2% 2,4-D amine 39.6%	Soluble concentrate.	Broadleaf weed and brush control in forest planting sites; Site preparation; Wildlife openings.	Aerial or ground, broadcast or directed spray.	Foliage, stem and cut surface.	Foliage application after leaf expansion; Cut surface any season except heavy sap flow.	4 - 8 quarts product per acre.	Backflash possible. Wait 8 - 9 months for conifer transplants. Tank mixture OK. See label.
Pathway, Tordon RTU Picloram 5.4% 2,4-D amine 20.9%	Ready to use liquid.	Select tree removal.	Cut surface, injection, frill or girdle.	Sapwood.	Any season except heavy sap flow in maple.	Injections 1 ml of product every 2-3 inches of circumference; Girdle or stump wet cut surface thoroughly.	Backflash possible. Stays phytotoxic for 1 year or more in soil. Do not exceed more than 4 gallons product per acre in 2 growing seasons.

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Sethoxydim G-Pro (Formerly Vantage) Sethoxydim 13 %	Emulsifiable concentrate.	Post-emergent annual and perennial grass control.	Aerial or ground, broadcast, band or spot spray.	Foliage.	Actively growing grass, before seed head appears. Works best when weeds are small.	2.25 - 3.75 pints product per acre.	Poor control/unsatisfactory results may result if grass or trees are stressed (draught, herbicide injury) prior to application.
Simazine 4L² Simazine 42.1%	Water dispersible liquid.	Pre-emergent annual broadleaf weed and grass control in shelterbelts.	Aerial or ground, broadcast, band, directed or overtop spray.	Roots.	Before weeds emerge or after weed removal.	2 - 4 quarts product diluted in at least 25 gallons water per acre.	Do not apply to transplants under 2 years of age. Tank mixture OK. See label.
Simazine 90 DF² Simazine 90%	Water dispersible granule.	Pre-emergent annual broadleaf weed and grass control in shelterbelts.	Aerial or ground, broadcast, band, directed or overtop spray.	Roots.	Before weeds emerge or after weed removal.	2.2 - 4.4 pounds product diluted in at least 25 gallons water per acre.	Do not apply to transplants under 2 years of age. Tank mixture OK. See label.
Oust XP¹, Spyder Sulfometuron methyl 75%	Water dispersible granule.	Pre- and early post-emergent grass and broadleaf control; Hardwood and conifer site preparation; Release in plantations.	Aerial or ground, broadcast, band or directed spray.	Roots and foliage.	Site prep apply in late fall or spring before transplanting; Release apply in spring after trees are planted but before trees break dormancy.	1 - 8 ounces product per acre.	Product requires use of a sprayer dedicated to only Sulfometuron methyl products. Tank mixtures OK. See label. For release apply after rainfall closes planting slit.
Garlon 3A, Tahoe 3A Triclopyr amine 44.4%	Soluble concentrate.	Brush and broadleaf control; Site preparation; Conifer release; Single tree removal.	Aerial (helicopter only) or ground, broadcast, directed spray or cut surface.	Foliage and cut surface.	Foliage application during active growth; Cut surface any time except heavy sap flow.	¼ - 3 gallons product per acre.	Tank mixtures OK. See label. Overtop spray applications can kill pines.
Garlon 4, Tahoe 4E Triclopyr ester 61.6%	Emulsifiable concentrate.	Brush and broadleaf control; Site preparation; Conifer release; Select tree removal.	Aerial (helicopter only) or ground, broadcast, directed, basal bark or dormant stem spray.	Foliage, bark and cut surface.	Foliage application during active growth. For conifer release when weed foliage has reached full size.	Site preparation 3 - 6 quarts per acre; Conifer release 1.5 - 3 quarts per acre. Directed spray 4-20 quarts per acre.	Site preparation 1 - 2 month delay before planting conifers; Overtop spray applications can kill pines. Tank mixtures OK. See label.

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Pathfinder II Triclopyr ester 13.6%	Ready to use liquid.	Brush control; Single tree removal.	Hand directed spray.	Basal bark and cut stump.	Any time except when snow or water covers base of tree or brush.	Thoroughly wet lower 12 - 15" of bark or cut surface but do not allow runoff.	OK on seasonally dry wetlands.
Hi-Dep 2,4-D amine 49.5%	Soluble concentrate.	High-volume brush control; Site preparation; Single tree removal.	Aerial or ground broadcast spray; Injection.	Foliage and bark injection.	Spray from full leaf expansion to dormancy; Injection May 15 to Oct 15.	1 - 2 gallons product diluted in 100 gallons water per acre.	Do not apply as a stand release to established conifers as injury may occur.
Patron 170 2,4-D ester 32.1% 2,4-DP ester 16.1%	Emulsifiable concentrate.	Brush control; Site preparation; Pine release; Single tree removal.	Aerial or ground broadcast, directed, basal bark, frill or cut surface spray.	Foliage, stem and cut surface.	After full leaf development; Pine release after bud set. Basal bark anytime.	Site preparation 1 - 2 gallons product per acre. Pine release 2 - 4 quarts product per acre.	To release red, jack and white pine and white spruce.

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